

ABSTRACT

A control device of a high-pressure fuel pump of an internal combustion engine capable of improving stability in controlling the drive of the high-pressure fuel pump by limiting the end timing of a drive signal of the high-pressure fuel pump and driving an actuator in a control effective range of the high-pressure fuel pump. The control device of the high-pressure fuel pump of the internal combustion engine has a fuel injection valve provided on a cylinder and the high-pressure fuel pump for pumping fuel to the fuel injection valve, wherein the high-pressure fuel pump comprises a pressure chamber, a plunger for pressurizing the fuel in the pressure chamber, a fuel valve provided in the pressure chamber, and the actuator for operating the fuel valve. The control device has means for calculating the drive signal of the actuator so as to realize the variable discharge of the high-pressure fuel pump. The means for calculating the drive signal has means for limiting the end timing of the drive signal of the actuator to a predetermined phase and/or means for limiting the output timing of the drive signal of the actuator to be within a predetermined phase range.